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Tactile discriminations for hardness, roughness, and shape learned with the use of one forepaw in a pedal-pressing apparatus has been found to transfer to the untrained paw in unoperated cat whereas such transfer fails in cats with sectioned corpus callosum. In 4 callosum-sectioned cats most of the neocortex was removed from the rights hemisphere leaving only an island of frontal cortex intact including somatic areas I and II. This produced no more than a transient impairment of preoperatively trained tactile discriminations performed with the affected (left) forepaw. Nor was the learning and retention of new discriminations with the same paw markedly retarded. Small lesions placed subsequently in the contralateral somatic cortex impaired severely the discriminative performance with the right paw but not that of the left paw. The findings indicate a remarkable localization within the isolated sector of the cortical factors directly involved in the learning, retention, and recall of somesthetic discrimination.